THAT WHICH IS CLAIMED IS:

1. Method of estimating the impulse response of an information transmission channel, characterized in that it comprises an evaluation of the useful number (N2) of coefficients of the impulse response of the channel as a function of the actual characteristics of the transmission channel.

2. Method according to claim 1, characterized in that a first estimate (30) of the impulse response of the transmission channel is produced by using a predetermined maximum value (Nmax) for the number of coefficients of this impulse response, in that the evaluation of the useful number of coefficients comprises the evaluation of a time domain spreading parameter (ds) of the transmission channel, and in that a final estimate (H2) of the impulse response of the transmission channel is produced by taking the said useful number of coefficients into account.

3. Method according to claim 2, characterized in that the said final estimate is derived by producing a new estimate (40) of the impulse response of the transmission channel using the said useful number of coefficients.

4. Method according to claim 2, characterized in that the said final estimate is produced by correcting (50) the said first estimate via a cancellation of a number of estimated coefficients equal to the difference between the said maximum value

and the said useful number, the cancelled coefficients being those associated with the versions of the transmitted signal which are the most delayed in time.

5. Method according to one of claims 2 to 4, characterized in that the useful number (N2) of coefficients is estimated by comparing the time domain spreading parameter (ds) evaluated with several predetermined values of spreading parameters corresponding respectively to different time domain spreadings of the transmission channel.

6. Device for estimating the impulse response of an information transmission channel, characterized in that it comprises a processing stage (BST) including evaluation means (MDT) able to evaluate a useful number (N2) of coefficients of the impulse response of the channel as a function of the actual characteristics of the transmission channel.

7. Device according to claim 6, characterized in that the processing stage comprises first estimating means (BST1) able to produce a first estimate (H2) of the impulse response of the transmission channel by using a predetermined maximum value (Nmax) for the number of coefficients of this impulse response, in that the evaluation means (MDT) are able to evaluate a time domain spreading parameter (ds) of the transmission channel in order to obtain the said useful number (N2) of coefficients, and in that the processing stage includes second estimating means (BST2) able to derive a final estimate (H2) of the impulse response of

the transmission channel by taking account of the said useful number of coefficients.

8. Device according to claim 7, characterized in that the second estimating means (BST2) are able to derive the said final estimate by producing a new estimate of the impulse response of the transmission channel using the said useful number of coefficients.

9. Device according to claim 7, characterized in that the second estimating means (BST2) include correction means (MCR) able to correct the said first estimate via a cancellation of a number of estimated coefficients equal to the difference between the said maximum value and the said useful number, the cancelled coefficients being those associated with the versions of the transmitted signal which are the most delayed in time.

10. Device according to one of claims 7 to 9, characterized in that the evaluation means (MDT) include a memory (MM) containing several predetermined values of spreading parameters corresponding respectively to different time domain spreadings of the transmission channel, and a comparator able to compare the time domain spreading parameter evaluated with the contents of the said memory.

11. Digital information receiver, characterized in that it incorporates a device as defined in one of claims 6 to 10.

12. Receiver according to claim 11, characterized in that it consists of a cellular mobile telephone.

13. Computer program comprising program-code means implementing the method as defined in one of claims 1 to 5 when the said program is run on a processor.

14. Medium capable of being read by a processor and containing program-code means able to implement the method as defined in one of claims 1 to 5 when the said program is run on the processor.